

WHAT IS CLAIMED IS:

1. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for packetizing layer-coded data so that a packet for transmitting the layer-coded data contains only data belonging to the same layer; and

means for transmitting the data packetized by  
said packetizing means.

2. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for dividing into low and high frequency component data each of intra-encoded image data (I frame data), prediction-encoded image data (P frame data), and bidirectional prediction-encoded image data (B frame data), which a video signal compressing/encoding system prescribes; and

means for transmitting in different packets the respective low and high frequency component data of each of the I, P and B frame data.

3. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for converting data belonging to each of layers of an elementary stream (ES) to packetized elementary stream (PES) data;  
wherein:



data belonging to the same layer is contained in a single IP packet.

X. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for converting layer-coded data belonging to each of layers of an elementary stream (ES) to packetized elementary stream (PES) data;

first packetizing means for packetizing the PES data to a real time protocol (RTP) packet for each layer data; and

second packetizing means for packetizing the RTP packet to a user datagram protocol (UDP) packet for each layer data, and

wherein:

said converting means converts the ES data so that only ES data belonging to the same layer is contained in a single PES packet which transmits an ES data;

said first packetizing means divides the PES packet belonging to the same layer into a plurality of RTP packets, each of which includes the divided PES packet data and a RTP header annexed to the divided PES packet, so that the length of the RTP packet is not more than a maximum data length in which the UDP packet is transmittable; and

said second packetizing means packetizes the RTP packet so that only the RTP packet data belonging to

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8. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for packetizing the PES packet to a user datagram protocol (UDP) packet for each layer data, and wherein:

when said packetizing means divides the PES packet data belonging to the same layer into a plurality of UDP packets, said packetizing means annexes at a predetermined position in each of the UDP packets information representing a position of a datagram of that divided UDP packet in the undivided PES packet.

means for packetizing layer-coded data so that an internet protocol (IP) packet for transmitting the layer-coded data contains only data belonging to the same layer; and

means for transmitting the IP packet.

10. A layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel, comprising:

means for dividing into low and high frequency component data each of intra-encoded image data (I frame data), prediction-encoded image data (P frame data), and bidirectional prediction-encoded image data (B frame data), which a video signal compressing/encoding system prescribes; and for forming an internet protocol (IP) packet which transmits only each of the low and high frequency component data of each of the I, P and B frames; and

means for transmitting the respective IP packets.

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